

CLAIMS

- 1 – Process for keeping and/or restoring communications within a network
 5 with planned resources, said network comprising at least several stations S_i distributed in subgroups, each of the said subgroups comprising at least one or several groups $\{G_i\}$ each composed of at least two stations S_i connected together, the link between these two stations possibly changing with time, wherein it comprises at least the following steps:
- 10 within a subgroup,
- a) associate a dummy station FG_i to a group $\{G_i\}$, the dummy station comprising different resources RG_i , allocated to stations in the group $\{G_i\}$,
 - b) starting from information about how the structure of the group $\{G_i\}$ changes:
 - 15 c) set up one or several relays R_i adapted to keep and/or to restore communications between the different elements of the group $\{G_i\}$,
 - d) reallocate resources of the dummy station FG_i to all relay stations R_i set up.
- 20 2 – Process according to claim 1, wherein step d) is made starting from a main station adapted for network design and allocation of resources such as an NCS station.
- 3 – Process according to either of claims 1 and 2, wherein a relay R_i is used
 25 for several groups $\{G_i\}$, $\{G_j\}$ when the resources RG_i , RG_j are separate.
- 4 – Process according to either of claims 1 and 2 wherein a station S_i associated with the resources RG_i not belonging to the group $\{G_i\}$ is used to receive the resources RG_j on a dummy station FG_j , when the resources RG_i
 30 and RG_j are separate.

5 – Process according to either of claims 1 and 2 wherein relay stations R_i may be provided with one communication plan for each group $\{G_i\}$, and resources of the dummy station may be allocated by local activation..

5 6 – Process according to any one of the previous claims, wherein step d) to reallocate resources comprises time reallocation steps dedicated to communications of the group $\{G_i\}$ and/or PG numbers and/or route numbers.

10 7 – System to keep and/or restore communications within a network with planned resources, the said network comprising at least several stations S_i distributed in several subgroups, each of the said subgroups comprising one or several groups $\{G_i\}$ each comprising at least two stations S_i connected to each other, the connection between these two stations possibly varying with time, wherein it comprises at least the following within a subgroup:

- 15 ➤ a dummy station FG_i in connection with a group $\{G_i\}$ and comprising resources RG_i allocated to stations in the group $\{G_i\}$,
- a device suitable for determining how the structure of the group changes,
- one or several relays R_i adapted to keep and/or restore communications between the different elements of the group $\{G_i\}$,
- 20 ➤ a device for reallocating resources of the dummy station FG_i to all installed relay stations R_i .

8 – System according to claim 7, wherein the device adapted to reallocate resources is a station adapted for network design and for allocation of
25 resources such as an NCS station.

9 – System according to either of claims 7 and 8, wherein the relay stations R_i are provided with one communication plan for each group $\{G_i\}$.

10 – Use of the process according to any one of claims 1 to 6 and the system according to one of claims 7 to 9, for deployments of L16 MIDS land networks.